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EXAMINER				
CHEN, QING				
ART UNIT		PAPER NUMBER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

RSWIPLAW@us.ibm.com

Office Action Summary

Application No.

10/705,525

Applicant(s)

BARTA ET AL.

Examiner

Qing Chen

Art Unit

2191

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3-13 and 41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3-13 and 41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-8508)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date _____

DETAILED ACTION

1. This Office action is in response to the amendment filed on January 15, 2009, entered by the RCE filed on the same date.
2. **Claims 1, 3-13, and 41** are pending.
3. **Claims 1 and 41** have been amended.
4. **Claims 2 and 14-40** have been canceled.
5. The objections to Claim 41 are withdrawn in view of Applicant's amendments to the claim.

Continued Examination Under 37 CFR 1.114

6. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 15, 2009 has been entered.

Response to Amendment

Claim Objections

7. **Claims 1 and 41** are objected to because of the following informalities:
 - **Claim 1** contains a typographical error: The word "and" should be added at the end of the "loading the installation package [...]" limitation.

- **Claim 41** recites the limitations “the plurality of application software components,” “the dependency information,” and “the application software components.” Applicant is advised to change these limitations to read “the plurality of software components,” “the plurality of dependency information,” and “the plurality of software components,” respectively, for the purpose of providing them with proper explicit antecedent bases and/or keeping the claim language consistent throughout the claims.
Appropriate correction is required.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. **Claims 1, 3, 4, and 6-13** are rejected under 35 U.S.C. 103(a) as being unpatentable over **US 6,442,754 (hereinafter “Curtis”)** in view of **US 6,725,452 (hereinafter “Te’eni”)** and **US 6,675,382 (hereinafter “Foster”)**.

As per **Claim 1**, Curtis discloses:

- including, in an installation package for the application, a data structure that provides, for each of the plurality of software components from the application, a software component deployment dependency data, an indication of necessary software components for an operation

of each of the plurality of software components being installed (see Figure 5; Column 6: 29-35, “The install program further includes a program object 303 comprised of file set objects 340. Within each file set object 340 there are multiple install objects 330. There are several types of install objects—file object 331, registry object 332 ...”; Column 13: 7-27 and 33-37, “... a data structure ... is maintained in the registry object or registry database 220, indicating installed programs and dependent components on which installed programs depend. In the embodiment of FIG. 5, the data structure is a hierarchical arrangement of programs, file sets, and dependent components in the form of a directory tree.” and “Each installed file set component has a Dependency subdirectory which includes information on each dependent component on which the file set and program depend in order to operate. The dependency subdirectory would list the program name, version, fileset name, and fileset version for each program on which the fileset including the dependency subdirectory depends.” and “... the dependency directory may indicate dependent file sets or registry objects that are the subject matter of the processed dependency object. If there are no dependent components, then the dependency directory will contain no values.”);

- loading the installation package into a memory connected to a computer (see Figure 1: 10; Column 5: 29-31, “The programs in memory 12 includes an operating system (OS) 16 program and application programs, such as an install program 17 or an installer tool kit.”); and
- using the computer so configured by the installation package (see Figure 1: 10; Column 5: 29-31, “The programs in memory 12 includes an operating system (OS) 16 program and application programs, such as an install program 17 or an installer tool kit.”), performing the steps of:

- determining a first plurality of software components previously installed on a system *(see Column 11: 11-20, "... a call to the check_dependency function ... This function determines whether the file, program or registry object indicated in the dependency object 400 is installed on the computer.")*;

- determining a second plurality of software components to be installed on the system *(see Figure 2: 340; Column 11: 23-24, "... a file set 340 is installed.")*;

- accessing a third plurality of software component deployment dependency data *(see Column 13: 18-21, "Each installed file set component has a Dependency subdirectory which includes information on each dependent component on which the file set and program depend in order to operate.")*; and

- accessing a sixth plurality of metadata from the data structure regarding the second plurality of software components to be installed and accessing a seventh plurality of metadata regarding the first plurality of software components previously installed *(see Column 13: 13-15 and 21-24, "A root directory includes a sub-directory for each installed program, indicating the program name and version." and "The dependency subdirectory would list the program name, version, fileset name, and fileset version for each program on which the fileset including the dependency subdirectory depends.")*.

However, Curtis does not disclose:

- an indication of incompatibility with a previously installed software component;
- determining a fourth plurality of software components suitable for parallel installation;

- determining an order in which the fourth plurality of software components can be grouped for a fifth plurality of parallel installations;
- analyzing the sixth plurality of metadata to determine an eight plurality of potential conflicts between the second plurality of software components to be installed and the first plurality of software components previously installed on the system;
- wherein a pre-deployment analysis allows the second plurality of software components to be installed in parallel and in a sequence of groups; and
- wherein an installation time for the application is reduced.

Te'eni discloses:

- an indication of incompatibility with a previously installed software component (*see Column 1: 61-64, "When performing the predefined procedures necessary for an upgrade to be implemented frequently dependency conflicts may arise among the components present and the components to be installed."; Column 5: 10-17, "Virtual upgrade module 36 creates upgrade processes for the following tasks that are performed sequentially: (a) to collect all the information necessary for the dependency analysis and the dependency conflicts resolving process such as the relevant component data information units from component data table 28, the encoded dependency rules from xor-rules table 32 and from add-remove rules table 34 module ..."*); and
- analyzing the sixth plurality of metadata to determine an eight plurality of potential conflicts between the second plurality of software components to be installed and the first plurality of software components previously installed on the system (*see Column 1: 61-64, "When performing the predefined procedures necessary for an upgrade to be implemented*

frequently dependency conflicts may arise among the components present and the components to be installed.”; Column 5: 10-20, “Virtual upgrade module 36 creates upgrade processes for the following tasks that are performed sequentially: (a) to collect all the information necessary for the dependency analysis and the dependency conflicts resolving process such as the relevant component data information units from component data table 28, the encoded dependency rules from xor-rules table 32 and from add-remove rules table 34 module, (b) to activate conflict resolver module 40 in order to check for potential dependency conflicts and to resolve any dependency conflicts that might arise as a result of the planned installation process ...”).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Te’eni into the teaching of Curtis to include an indication of incompatibility with a previously installed software component; and analyzing the sixth plurality of metadata to determine an eight plurality of potential conflicts between the second plurality of software components to be installed and the first plurality of software components previously installed on the system. The modification would be obvious because one of ordinary skill in the art would be motivated to prevent any unsuccessful installation (*see Te’eni – Column 1: 64-66*).

Foster discloses:

- determining a fourth plurality of software components suitable for parallel installation (*see Column 10: 6-8, “... other packages may be concurrently installed that require the presence of package 200 on the system.”*);
- determining an order in which the fourth plurality of software components can be grouped for a fifth plurality of parallel installations (*see Column 10: 8-10, “... the system checks*

the dependencies between package 200 and the packages that are being simultaneously installed.”);

- wherein a pre-deployment analysis allows the second plurality of software components to be installed in parallel and in a sequence of groups (*see Column 10: 8-10, “... the packages that are being simultaneously installed.”); and*

- wherein an installation time for the application is reduced (*see Column 10: 8-10, “... the packages that are being simultaneously installed.”).*

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Foster into the teaching of Curtis to include determining a fourth plurality of software components suitable for parallel installation; determining an order in which the fourth plurality of software components can be grouped for a fifth plurality of parallel installations; wherein a pre-deployment analysis allows the second plurality of software components to be installed in parallel and in a sequence of groups; and wherein an installation time for the application is reduced. The modification would be obvious because one of ordinary skill in the art would be motivated to provide an efficient and simple solution for packaging, distributing and installing software (*see Foster – Column 1: 43-44*).

As per **Claim 3**, the rejection of **Claim 1** is incorporated; and Curtis further discloses:

- updating the data structure with an identity of a ninth plurality of recently installed software components (*see Column 13: 28-30, “The information in this directory is created whenever a component is installed. For instance, whenever a program is installed, a subdirectory is created under the root directory.”).*

As per **Claim 4**, the rejection of **Claim 1** is incorporated; and Curtis further discloses:

- providing a user with a plurality of options for the eight plurality of potential conflicts (see Column 12: 35-45, “If so, control transfers to block 534 where the program displays on the display means 14 the name of the dependent component that was not located on the system and a radio button to allow the user to selectively cause the execution of the install script in the Install 416 or SInstall 418 fields. If there is not install script, then control transfers to block 536 where the program displays information maintained in the install information field 426 to inform the user on where to obtain the dependent component that is needed before the program may be installed.”).

As per **Claim 6**, the rejection of **Claim 4** is incorporated; and Curtis further discloses:

- wherein a second option includes continuing an installation (see Column 12: 51-53, “When the user selects to install the file, the install program 17 will execute the install script in either the Install 416 or SInstall field 418.”).

As per **Claim 7**, the rejection of **Claim 6** is incorporated; and Curtis further discloses:

- upon the exercise of the second option, recording an entry in a log indicative of a conflict and of a continuation of installation (see Figure 2: 140; Column 7: 4-5, “During install, the log 140 and ‘uninstall.Java1’ 150 information are built.”; Column 8: 24-29, “... providing various logs, e.g. a log for keeping track of what is being installed, and a log that reports the progress of install. Logs are used for both the install and uninstall process. Furthermore, these

logs are human readable which allows them to be checked, e.g., after a silent install, to ensure that a file has installed successfully.”).

As per **Claim 8**, the rejection of **Claim 1** is incorporated; and Curtis further discloses:

- initiating a removal of a software component from a system (*see Figure 6: 560; Column 13: 50-51, “... the program processes a request to uninstall a program.”*); and
- identifying a tenth plurality of remaining software components which depend on the software component to be removed (*see Column 13: 59-62, “The uninstall program may navigate the directory structure from the dependency directory shown in FIG. 5 to determine dependant programs that depend on the program subject to the uninstallation.”*).

As per **Claim 9**, the rejection of **Claim 8** is incorporated; and Curtis further discloses:

- providing a user with a plurality of options if the tenth plurality of dependent remaining software components are identified (*see Column 12: 35-45, “If so, control transfers to block 534 where the program displays on the display means 14 the name of the dependent component that was not located on the system and a radio button to allow the user to selectively cause the execution of the install script in the Install 416 or SInstall 418 fields. If there is not install script, then control transfers to block 536 where the program displays information maintained in the install information field 426 to inform the user on where to obtain the dependent component that is needed before the program may be installed.”*).

As per **Claim 10**, the rejection of **Claim 9** is incorporated; and Curtis further discloses:

- wherein a first option includes aborting a removal (*see Figure 6: 570; Column 13: 62-63, "Control then transfers to block 570 to exit uninstallation ..."*).

As per **Claim 11**, the rejection of **Claim 9** is incorporated; and Curtis further discloses:

- wherein a second option includes continuing a removal (*see Figure 6: 568; Column 13: 55-56, "Otherwise, control transfers to block 568 to proceed with the uninstallation."*).

As per **Claim 12**, the rejection of **Claim 8** is incorporated; and Curtis further discloses:

- identifying a first software component previously installed on a system which is dependent upon a removed software component (*see Column 13: 4-6 and 64-67, "... before uninstalling a program, a determination may be made as to whether other installed components depend on the file being uninstalled."* and *"... information indicating the depending programs that should be uninstalled before continuing with the uninstallation of the program, which is a dependent program."*); and

- determining an identity of a second software component upon which the first software component depends (*see Column 13: 1-4, "During installation of a dependent program, dependency information from the Dependency Object 400 may be written to a dependency location indicating dependent components of the installed file."*).

As per **Claim 13**, the rejection of **Claim 12** is incorporated; and Curtis further discloses:

- installing the second software component upon which the first software component depends (*see Column 13: 1-4, "During installation of a dependent program, dependency*

information from the Dependency Object 400 may be written to a dependency location indicating dependent components of the installed file.”); and

- creating a dependency link between the first software component and the second software component (*see Column 13: 1-4, “Dependency Object 400 may be written to a dependency location indicating dependent components of the installed file.”*).

10. **Claim 5** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Curtis** in view of **Te’eni** and **Foster** as applied to Claim 4 above, and further in view of US 6,918,112 (hereinafter “**Bourke-Dunphy**”).

As per **Claim 5**, the rejection of **Claim 4** is incorporated; however, Curtis, Te’eni, and Foster do not disclose:

- wherein a first option includes aborting an installation.

Bourke-Dunphy discloses:

- wherein a first option includes aborting an installation (*see Figure 5: 236; Column 8: 35-38, “... the user may select a CANCEL action button 236 to return to the component selection user interface ... where the user may manually modify the component selections.”*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Bourke-Dunphy into the teaching of Curtis to include wherein a first option includes aborting an installation. The modification would be obvious because one of ordinary skill in the art would be motivated to allow the user to exit the

current installation, correct the error identified, and reinitiate the installation procedure (*see Bourke-Dunphy – Column 1: 27-34*).

11. **Claim 41** is rejected under 35 U.S.C. 103(a) as being unpatentable over **Curtis** in view of **Foster**.

As per **Claim 41**, Curtis discloses:

- including a semantic model in an installation package of the application (*see Figure 5; Column 6: 29-35, “The install program further includes a program object 303 comprised of file set objects 340. Within each file set object 340 there are multiple install objects 330. There are several types of install objects—file object 331, registry object 332 ...”; Column 13: 7-27, “... a data structure ... is maintained in the registry object or registry database 220, indicating installed programs and dependent components on which installed programs depend. In the embodiment of FIG. 5, the data structure is a hierarchical arrangement of programs, file sets, and dependent components in the form of a directory tree.”*);
- responsive to loading the installation package into a memory connected to a computer, using the computer so configured by the installation package (*see Figure 1: 10; Column 5: 29-31, “The programs in memory 12 includes an operating system (OS) 16 program and application programs, such as an install program 17 or an installer tool kit.”*) to perform steps comprising:
 - storing a first record of each of a plurality of software components that is to be deployed in a read file (*see Column 9: 20-24, “The dependency object 400 is used during install*

and uninstall operations to determine whether any files or programs upon which the program to install needs in order to operate are installed and determine whether any programs to uninstall are required by already installed programs.”);

- storing a second record of each of a plurality of previously installed software components in a registry file (see Column 13: 7-27, “... a data structure ... is maintained in the registry object or registry database 220, indicating installed programs and dependent components on which installed programs depend. In the embodiment of FIG. 5, the data structure is a hierarchical arrangement of programs, file sets, and dependent components in the form of a directory tree.”);

- when the read file is available to deploy, examining the registry file and accessing the semantic model to obtain a plurality of dependency information indicating a plurality of relationships among the plurality of software components to be installed in the target and among a plurality of previously installed software components (see Column 13: 7-47, “Each installed program includes a next level subdirectory for each file set of the installed program, indicating the file set name and version. Each installed file set component has a Dependency subdirectory which includes information on each dependent component on which the file set and program depend in order to operate.” and “The registry route 436 in the dependency object 400 indicates the location of the dependency directory in the registry file where the dependency information for a particular dependency object is maintained.” and “The registry route 436 is used to determine the dependency directory of where to write dependency information when the program is installed.”);

- using the plurality of dependency information to group the plurality of software components into sets of software components with like dependency levels, wherein a first set of software components has no dependencies, a second set of software components has dependencies only on the first set of software components, and a third set of software components has dependencies only on the first and second sets of software components (see *Figure 5; Column 13: 7-27 and 33-37*, "... a data structure ... is maintained in the registry object or registry database 220, indicating installed programs and dependent components on which installed programs depend. In the embodiment of FIG. 5, the data structure is a hierarchical arrangement of programs, file sets, and dependent components in the form of a directory tree." and "Each installed file set component has a Dependency subdirectory which includes information on each dependent component on which the file set and program depend in order to operate. The dependency subdirectory would list the program name, version, fileset name, and fileset version for each program on which the fileset including the dependency subdirectory depends." and "... the dependency directory may indicate dependent file sets or registry objects that are the subject matter of the processed dependency object. If there are no dependent components, then the dependency directory will contain no values.");
- when a component is installed, updating the registry file (see *Column 11: 63-65*, "As discussed, information on installed components is added to a registry file, e.g., registry 220, when the components are installed.");
- when a conflict is identified, taking an appropriate action (see *Column 12: 35-45*, "If so, control transfers to block 534 where the program displays on the display means 14 the name of the dependent component that was not located on the system and a radio button to allow the

user to selectively cause the execution of the install script in the Install 416 or SInstall 418 fields. If there is not install script, then control transfers to block 536 where the program displays information maintained in the install information field 426 to inform the user on where to obtain the dependent component that is needed before the program may be installed.”); and

- displaying a progress report by labeling the plurality of software components in the semantic model in a selected level of granularity (*see Figure 2: 140; Column 7: 4-5, “During install, the log 140 and ‘uninstall.Java1’ 150 information are built.”; Column 8: 24-29, “... providing various logs, e.g. a log for keeping track of what is being installed, and a log that reports the progress of install. Logs are used for both the install and uninstall process. Furthermore, these logs are human readable which allows them to be checked, e.g., after a silent install, to ensure that a file has installed successfully.”).*

However, Curtis does not disclose:

- installing the first set of software components in parallel;
- responsive to completing installation of the first set of software components, installing the second set of software components in parallel; and
- responsive to completing installation of the second set of software components, installing the third set of software components in parallel.

Foster discloses:

- installing the first set of software components in parallel (*see Column 10: 6-10, “... other packages may be concurrently installed that require the presence of package 200 on the system.” and “... the packages that are being simultaneously installed.”);*

- responsive to completing installation of the first set of software components, installing the second set of software components in parallel (*see Column 10: 6-10, "... other packages may be concurrently installed that require the presence of package 200 on the system." and "... the packages that are being simultaneously installed."*); and

- responsive to completing installation of the second set of software components, installing the third set of software components in parallel (*see Column 10: 6-10, "... other packages may be concurrently installed that require the presence of package 200 on the system." and "... the packages that are being simultaneously installed."*).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate the teaching of Foster into the teaching of Curtis to include installing the first set of software components in parallel; responsive to completing installation of the first set of software components, installing the second set of software components in parallel; and responsive to completing installation of the second set of software components, installing the third set of software components in parallel. The modification would be obvious because one of ordinary skill in the art would be motivated to provide an efficient and simple solution for packaging, distributing and installing software (*see Foster – Column 1: 43-44*).

Response to Arguments

12. Applicant's arguments filed on January 15, 2009 have been fully considered, but they are not persuasive.

In the Remarks, Applicant argues:

a) Claim 1 has been amended to recite "including, in an installation package for the application, a data structure that provides" the previously recited elements of dependency and incompatibility. Support for the amendment is found in the specification [26] line 5. Applicants submit that the cited art, individually or in combination, is silent as to including a data structure with the limitations described into an installation package.

Examiner's response:

a) Examiner disagrees. Applicant's arguments are not persuasive for at least the following reasons:

First, without acquiescing to the Applicant's assertion that the cited art, individually or in combination, is silent as to including a data structure with the limitations described into an installation package, the Examiner first submits that the Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without presenting supporting arguments pointing out the specific distinctions believed to render the claims patentable over the applied references. Applicant fails to present any argument against the Examiner's interpretation of the claims and specifically point out the details in the cited art that support the Applicant's assertion that the cited art, individually or in combination, is silent as to including a data structure with the limitations described into an installation package. Mere statements concluding that the prior art does not disclose or suggest a particular claim limitation without any supporting argument or evidence is a general allegation.

Second, with respect to the Applicant's assertion that the cited art, individually or in combination, is silent as to including a data structure with the limitations described into an

installation package, the Examiner respectfully submits that Curtis clearly discloses “including, in an installation package for the application, a data structure that provides, for each of the plurality of software components from the application, a software component deployment dependency data, an indication of necessary software components for an operation of each of the plurality of software components being installed” (see Figure 5; Column 6: 29-35, “The install program further includes a program object 303 comprised of file set objects 340. Within each file set object 340 there are multiple install objects 330. There are several types of install objects--file object 331, registry object 332 ...”; Column 13: 7-27 and 33-37, “... a data structure ... is maintained in the registry object or registry database 220, indicating installed programs and dependent components on which installed programs depend. In the embodiment of FIG. 5, the data structure is a hierarchical arrangement of programs, file sets, and dependent components in the form of a directory tree.” and “Each installed file set component has a Dependency subdirectory which includes information on each dependent component on which the file set and program depend in order to operate. The dependency subdirectory would list the program name, version, fileset name, and fileset version for each program on which the fileset including the dependency subdirectory depends.” and “... the dependency directory may indicate dependent file sets or registry objects that are the subject matter of the processed dependency object. If there are no dependent components, then the dependency directory will contain no values.”). Note that the data structure is maintained in the registry object which is included within the install program (installation package).

Therefore, for at least the reasons set forth above, the rejection made under 35 U.S.C. § 103(a) with respect to Claim 1 is proper and therefore, maintained.

In the Remarks, Applicant argues:

b) Claim 1 has been amended to recite "loading the installation package into a memory connected to a computer" and "using the computer so configured by the installation package." Support for the amendment is found in the specification, paragraph [26]. Applicants submit that the cited art, individually or in combination, is silent as to loading an installation package that has a data structure included as discussed above.

Examiner's response:

b) Examiner disagrees. Applicant's arguments are not persuasive for at least the following reasons:

First, without acquiescing to the Applicant's assertion that the cited art, individually or in combination, is silent as to loading an installation package that has a data structure included, the Examiner first submits that the Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without presenting supporting arguments pointing out the specific distinctions believed to render the claims patentable over the applied references. Applicant fails to present any argument against the Examiner's interpretation of the claims and specifically point out the details in the cited art that support the Applicant's assertion that the cited art, individually or in combination, is silent as to loading an installation package that has a data structure included. Mere statements concluding that the prior art does not disclose or suggest a particular claim limitation without any supporting argument or evidence is a general allegation.

Second, with respect to the Applicant's assertion that the cited art, individually or in combination, is silent as to loading an installation package that has a data structure included, the Examiner respectfully submits that Curtis clearly discloses "loading the installation package into a memory connected to a computer" (*see Figure 1: 10; Column 5: 29-31, "The programs in memory 12 includes an operating system (OS) 16 program and application programs, such as an install program 17 or an installer tool kit."*). Note that the install program (installation package) is loaded into the memory.

Therefore, for at least the reasons set forth above, the rejection made under 35 U.S.C. § 103(a) with respect to Claim 1 is proper and therefore, maintained.

In the Remarks, Applicant argues:

c) The Examiner stated the motivation to combine was "to prevent any unsuccessful installation." As can be seen, an express analysis has not been provided in the Examiner's reasons for combining the references. The Examiner has offered noting more than a general and pervasive goal or desire to "to prevent any unsuccessful installation." To meet this goal, the Examiner states it would have been obvious to combine Te'eni with Curtis. Further, even if this conclusory statement or goal could be considered a "reason", it does not have any articulated reasoning with some technical rational to select the specific combination of technical concepts as furthering performance.

Examiner's response:

c) Examiner disagrees. With respect to the Applicant's assertion that an express analysis has not been provided in the Examiner's reasons for combining the references, the Examiner respectfully submits that Curtis is within the field of the Applicant's endeavor and hence is analogous prior art because Curtis' invention is directed to system, method, and program for checking dependencies of installed software components during installation or uninstallation of software. Te'eni is also within the field of the Applicant's endeavor and hence is analogous prior art because Te'eni's invention is directed to a method for resolving dependency conflicts across diverse sets of functional entities while installing or removing specific operative elements in a computing environment. Therefore, it is permissible to combine the teaching of Te'eni into the teaching of Curtis to include the limitations disclosed by Te'eni since Te'eni provides a reason for combining the elements in the manner claimed. See MPEP § 2141.01(a).

Therefore, for at least the reason set forth above, the rejection made under 35 U.S.C. § 103(a) with respect to Claim 1 is proper and therefore, maintained.

In the Remarks, Applicant argues:

d) Claim 41 has been amended to recite "including a semantic model in an installation package of the application." Support for the amendment is found in the specification, paragraph [26] line 5. Applicants submit that the cited art, individually or in combination, is silent as to including a data structure with the limitations described into an installation package.

Examiner's response:

d) Examiner disagrees. Applicant's arguments are not persuasive for at least the following reasons:

First, without acquiescing to the Applicant's assertion that the cited art, individually or in combination, is silent as to including a data structure with the limitations described into an installation package, the Examiner first submits that the Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without presenting supporting arguments pointing out the specific distinctions believed to render the claims patentable over the applied references. Applicant fails to present any argument against the Examiner's interpretation of the claims and specifically point out the details in the cited art that support the Applicant's assertion that the cited art, individually or in combination, is silent as to including a data structure with the limitations described into an installation package. Mere statements concluding that the prior art does not disclose or suggest a particular claim limitation without any supporting argument or evidence is a general allegation.

Second, with respect to the Applicant's assertion that the cited art, individually or in combination, is silent as to including a data structure with the limitations described into an installation package, the Examiner respectfully submits that the Examiner has addressed the Applicant's argument in the Examiner's response (a) hereinabove.

Therefore, for at least the reasons set forth above, the rejection made under 35 U.S.C. § 103(a) with respect to Claim 41 is proper and therefore, maintained.

In the Remarks, Applicant argues:

e) Claim 41 has been amended to further recite "responsive to loading the installation package into a memory connected to a computer, using the computer so configured by the installation package to perform steps comprising." Support for the amendment is found in the specification, paragraph [26]. Applicants submit that the cited art, individually or in combination, is silent as to loading an installation package that has a data structure included as discussed above.

Examiner's response:

e) Examiner disagrees. Applicant's arguments are not persuasive for at least the following reasons:

First, without acquiescing to the Applicant's assertion that the cited art, individually or in combination, is silent as to loading an installation package that has a data structure included, the Examiner first submits that the Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without presenting supporting arguments pointing out the specific distinctions believed to render the claims patentable over the applied references. Applicant fails to present any argument against the Examiner's interpretation of the claims and specifically point out the details in the cited art that support the Applicant's assertion that the cited art, individually or in combination, is silent as to loading an installation package that has a data structure included. Mere statements concluding that the prior art does not disclose or suggest a particular claim limitation without any supporting argument or evidence is a general allegation.

Second, with respect to the Applicant's assertion that the cited art, individually or in combination, is silent as to loading an installation package that has a data structure included, the Examiner respectfully submits that the Examiner has addressed the Applicant's argument in the Examiner's response (b) hereinabove.

Therefore, for at least the reasons set forth above, the rejection made under 35 U.S.C. § 103(a) with respect to Claim 41 is proper and therefore, maintained.

In the Remarks, Applicant argues:

f) Claim 41 has been amended to further recite "storing a first record of each of a plurality of software components that is to be deployed in a read file." Support for the amendment is found in the specification, paragraph [29] lines 1-6 and paragraph [33] lines 6-8. Claim 41 has been amended to further recite "storing a second record of each of a plurality of previously installed software components in a registry file." Claim 41 has been amended to further recite "when the read file is available to deploy, examining the registry file and accessing the semantic model to obtain a plurality of dependency information indicating a plurality of relationships among the plurality of application software components to be installed in the target and among a plurality of previously installed software components." Support for the amendment is found in the specification, paragraph [33]. Applicants submit that the cited art, individually or in combination, is silent as to storing a record in a read file when the action is described in conjunction with accessing the semantic model.

Examiner's response:

f) Examiner disagrees. Applicant's arguments are not persuasive for at least the following reasons:

First, without acquiescing to the Applicant's assertion that the cited art, individually or in combination, is silent as to storing a record in a read file when the action is described in conjunction with accessing the semantic model, the Examiner first submits that the Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without presenting supporting arguments pointing out the specific distinctions believed to render the claims patentable over the applied references. Applicant fails to present any argument against the Examiner's interpretation of the claims and specifically point out the details in the cited art that support the Applicant's assertion that the cited art, individually or in combination, is silent as to storing a record in a read file when the action is described in conjunction with accessing the semantic model. Mere statements concluding that the prior art does not disclose or suggest a particular claim limitation without any supporting argument or evidence is a general allegation.

Second, with respect to the Applicant's assertion that the cited art, individually or in combination, is silent as to storing a record in a read file when the action is described in conjunction with accessing the semantic model, the Examiner respectfully submits that Curtis clearly discloses "storing a first record of each of a plurality of software components that is to be deployed in a read file" (*see Column 9: 20-24, "The dependency object 400 is used during install and uninstall operations to determine whether any files or programs upon which the program to install needs in order to operate are installed and determine whether any programs to uninstall are required by already installed programs."*). Note that the dependency object (read file) is

used to store file or program dependency data during install operations of programs. Examiner further submits that Curtis also clearly discloses “when the read file is available to deploy, examining the registry file and accessing the semantic model to obtain a plurality of dependency information indicating a plurality of relationships among the plurality of software components to be installed in the target and among a plurality of previously installed software components” (*see Column 13: 7-47, “Each installed program includes a next level subdirectory for each file set of the installed program, indicating the file set name and version. Each installed file set component has a Dependency subdirectory which includes information on each dependent component on which the file set and program depend in order to operate.” and “The registry route 436 in the dependency object 400 indicates the location of the dependency directory in the registry file where the dependency information for a particular dependency object is maintained.” and “The registry route 436 is used to determine the dependency directory of where to write dependency information when the program is installed.”*). Note that the registry route in the dependency object is used to determine the dependency directory in the registry file which includes information on each dependent component on which the installed file set and program depend in order to operate (examining the registry file and accessing the semantic model).

Therefore, for at least the reasons set forth above, the rejection made under 35 U.S.C. § 103(a) with respect to Claim 41 is proper and therefore, maintained.

In the Remarks, Applicant argues:

g) Claim 41 has been amended to recite "when a component is installed, updating the registry file." Support for the amendment is found in the specification, paragraph [33]. As described above, the prior art is silent as to the specific cooperation discussed above.

Examiner's response:

g) Examiner disagrees. Applicant's arguments are not persuasive for at least the following reasons:

First, without acquiescing to the Applicant's assertion that the cited art is silent as to updating the registry file when a component is installed, the Examiner first submits that the Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without presenting supporting arguments pointing out the specific distinctions believed to render the claims patentable over the applied references. Applicant fails to present any argument against the Examiner's interpretation of the claims and specifically point out the details in the cited art that support the Applicant's assertion that the cited art is silent as to updating the registry file when a component is installed. Mere statements concluding that the prior art does not disclose or suggest a particular claim limitation without any supporting argument or evidence is a general allegation.

Second, with respect to the Applicant's assertion that the cited art is silent as to updating the registry file when a component is installed, the Examiner respectfully submits that Curtis clearly discloses "when a component is installed, updating the registry file" (*see Column 11: 63-65, "As discussed, information on installed components is added to a registry file, e.g., registry*

220, *when the components are installed.*"). Note that information on installed components is added to the registry file when the components are installed.

Therefore, for at least the reasons set forth above, the rejection made under 35 U.S.C. § 103(a) with respect to Claim 41 is proper and therefore, maintained.

In the Remarks, Applicant argues:

h) Claim 41 has been amended to recite "when a conflict is identified, taking an appropriate action." Support for the amendment is found in paragraphs [12] and [38]. Applicants submit that this limitation distinguishes over the cited art when the limitation is read as part of the entire claim and is a result of the semantic model in the installation package (see arguments above as to these elements).

Examiner's response:

h) Examiner disagrees. Applicant's arguments are not persuasive for at least the following reasons:

First, without acquiescing to the Applicant's assertion that the cited art is silent as to taking an appropriate action when a conflict is identified, the Examiner first submits that the Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without presenting supporting arguments pointing out the specific distinctions believed to render the claims patentable over the applied references. Applicant fails to present any argument against the Examiner's interpretation of the claims and specifically point out the details in the cited art that support the Applicant's assertion

that the cited art is silent as to taking an appropriate action when a conflict is identified. Mere statements concluding that the prior art does not disclose or suggest a particular claim limitation without any supporting argument or evidence is a general allegation.

Second, with respect to the Applicant's assertion that the cited art is silent as to taking an appropriate action when a conflict is identified, the Examiner respectfully submits that Curtis clearly discloses "when a conflict is identified, taking an appropriate action" (*see Column 12: 35-45, "If so, control transfers to block 534 where the program displays on the display means 14 the name of the dependent component that was not located on the system and a radio button to allow the user to selectively cause the execution of the install script in the Install 416 or Sinstall 418 fields. If there is not install script, then control transfers to block 536 where the program displays information maintained in the install information field 426 to inform the user on where to obtain the dependent component that is needed before the program may be installed."*). Note that during installation of a program, when a dependent component of the program is not located on the system (conflict), the user is then informed on where to obtain the dependent component this is needed (appropriate action) before the program may be installed.

Therefore, for at least the reasons set forth above, the rejection made under 35 U.S.C. § 103(a) with respect to Claim 41 is proper and therefore, maintained.

In the Remarks, Applicant argues:

- i) Claim 41 has been amended to recite "displaying a progress report by labeling the plurality of software components in the semantic model in a selected level of granularity." Support for the amendment is found in the specification, paragraph [39]. Applicants submit that

the cited art is silent as to displaying a progress report where the software components are labeled "in a selected level of granularity." Assuming *arguendo* that such a progress report may be found in the prior art, then Applicants submit that the prior art is silent as to such a feature in a semantic model.

Examiner's response:

i) Examiner disagrees. Applicant's arguments are not persuasive for at least the following reasons:

First, without acquiescing to the Applicant's assertion that the cited art is silent as to displaying a progress report where the software components are labeled "in a selected level of granularity," the Examiner first submits that the Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without presenting supporting arguments pointing out the specific distinctions believed to render the claims patentable over the applied references. Applicant fails to present any argument against the Examiner's interpretation of the claims and specifically point out the details in the cited art that support the Applicant's assertion that the cited art is silent as to displaying a progress report where the software components are labeled "in a selected level of granularity." Mere statements concluding that the prior art does not disclose or suggest a particular claim limitation without any supporting argument or evidence is a general allegation.

Second, with respect to the Applicant's assertion that the cited art is silent as to displaying a progress report where the software components are labeled "in a selected level of granularity," the Examiner respectfully submits that Curtis clearly discloses "displaying a

progress report by labeling the plurality of software components in the semantic model in a selected level of granularity" (see Figure 2: 140; Column 7: 4-5, "During install, the log 140 and 'uninstall.Java1' 150 information are built."; Column 8: 24-29, "... providing various logs, e.g. a log for keeping track of what is being installed, and a log that reports the progress of install. Logs are used for both the install and uninstall process. Furthermore, these logs are human readable which allows them to be checked, e.g., after a silent install, to ensure that a file has installed successfully."). Note that various logs are generated to keep track of what is being installed and report the progress of the installation. Furthermore, the logs are human readable. Thus, one of ordinary skill in the art would readily comprehend that the logs have different labeling to indicate the programs being installed as well as their installation progress and hierarchical arrangements to display the various granularities of the programs' dependency orders.

Therefore, for at least the reasons set forth above, the rejection made under 35 U.S.C. § 103(a) with respect to Claim 41 is proper and therefore, maintained.

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

14. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Qing Chen whose telephone number is 571-270-1071. The

Examiner can normally be reached on Monday through Thursday from 7:30 AM to 4:00 PM.

The Examiner can also be reached on alternate Fridays.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Wei Zhen, can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the TC 2100 Group receptionist whose telephone number is 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Q. C./

Examiner, Art Unit 2191

/Wei Y Zhen/

Supervisory Patent Examiner, Art Unit 2191